The Canada Student Loans Program: Time for Revision*

JOSEPH SCHAAFSMA†

ABSTRACT

This paper consists of a critical appraisal of a number of aspects of the Canada Student Loans (CSL) program. In the first part of the paper it is argued that the current CSL program lacks horizontal and vertical equity and creates a work-disincentive. Furthermore, it is shown that the program rules are badly in need of up-dating to take into account the effects of inflation and tax rate increases since 1982. In the second part of the paper it is argued that the government is controlling the cost of the CSL interest subsidy inefficiently. An alternative design for the CSL program is proposed and it is argued that this new design benefits both students and parents at little or no additional cost to the government.

RÉSUMÉ

Ce mémoire consiste en une évaluation critique d'un certain nombre d'aspects du Programme canadien de prêts aux étudiants (PCPE). La première partie du mémoire argumente que le PCPE actuel manque d'équité horizontale et verticale et que ce programme décourage le travail. En outre, on démontre que le règlement du programme a absolument besoin d'être mis à jour pour prendre en considération les effets de l'inflation et des augmentations d'impôt depuis 1982. La deuxième partie du mémoire soutient que le gouvernement contrôle inefficacement les frais de subvention des intérêts du PCPE. Une contreproposition pour le PCPE est présentée et on argumente que cette nouvelle proposition profiterait à la fois aux étudiants et aux parents, sans pour cela augmenter de façon significative les coûts du programme.

Since its inception in 1964 the Canada Student Loans (CSL) program has been an important source of supplementary funds for financially needy post-secondary students. In 1987-88, the last academic year for which summary data for the CSL

program are available, 221,268 full-time students, or approximately 27% of all full-time post-secondary students,[1] borrowed $558.9 million or $2,661 per student (Department of the Secretary of State, 1989, p. 8). This average loan per student is approximately one half the direct cost incurred by an out-of-town student attending university.[2] Clearly, in terms of both the number of students borrowing and the amount per borrower, the CSL program plays a major role in enabling students to meet the financial cost of a post-secondary education.

A unique feature of the CSL program is that for most[3] undergraduate students the size of the CSL for which they qualify falls as parental income rises.[4] This inverse relationship is specifically incorporated into the plan on the assumption that where possible, parents should assist their offspring financially with the costs of a post-secondary education. The manner in which the expected parental contribution is linked to parental income is analogous to a personal income tax system. The expected parental contribution calculation can, therefore, be evaluated against equity and efficiency criteria developed in the personal income tax literature. Part of this paper is devoted to such an exercise and some improvements to the CSL program are suggested. In the latter part of this paper the case for a more radical revision of the CSL program is developed. The paper begins with a brief description of the CSL program with an emphasis on the critical role of the expected parental contribution.

I A BRIEF DESCRIPTION OF THE CSL PROGRAM[5]

The CSL program is a federal program for providing financial assistance to post-secondary students. The program commenced operation in 1964 and the last major revision occurred in 1983. In its current format the program guarantees loans made by lending institutions[6] to full-time[7] post-secondary students and pays the interest on the loans while the borrower is a full-time student and for six months thereafter. The loan limit is $105 per week of full-time attendance for a maximum of 520 weeks. The program provides for special relief for graduates experiencing repayment problems beyond their control.

The amount a student can borrow is basically determined by the following formula:

Loan = Expenses − Student Contribution − Parental Contribution.

Eligible expenses consist primarily of tuition fees, books and supplies, local transportation, and a miscellaneous allowance of $28 per week for each week of full-time attendance. Students not living at home may also include the cost of room and board, and travel expenses. The student contribution is based on the student's savings, assets, summer earnings and part-time earnings during the academic year. The parental contribution applies if the student is not married, and has not been a member of the labour force for at least two periods of twelve consecutive months or has not been out of secondary school for four years. The parental contribution is based on a weekly amount and consists of a fixed and a variable component. The fixed component is $38/wk and applies only if the student lives

away from home.[8] The variable component depends on the parents' gross income less exceptional expenses, and family size (parents + children). The total parental contribution is the sum of the fixed and variable components multiplied by the number of weeks of full-time attendance.

Since much of the discussion below concerns the expected parental contribution, an abbreviated parental contribution table is shown in Table 1. Only three aspects of Table 1 need be highlighted at this point. First, the expected parental contribution rises extremely rapidly with parental income. Second, the parental contribution does not rise smoothly with income but increases only as income jumps from one income class to the next, where the class interval is $500. Third, the effect of an increase in family size of the expected parental contribution is not uniform over the income classes. For example, an increase in family size from 3 to 4 lowers the expected added contribution by $32/wk at the $46,250 income level but by $49/wk at the $59,750 income level.

II. A CRITICAL APPRAISAL

1. The Weekly Added Parental Contribution and Horizontal Equity.

As noted above, the expected parental contribution is basically the sum of $38/wk and a variable component, multiplied by the number of weeks the student attends a post-secondary educational institution. A strong case can be made for multiplying the basic $38/wk by the number of weeks the student lives away from home at university or college. This amount is presumably the expense the parents would have incurred had the student lived at home. However, calculating the expected added parental contribution by multiplying a weekly added contribution by the number of weeks of full-time attendance violates the principle of horizontal equity the equal treatment of equals. The CSL program *appears* to treat equals equally since families in equal financial circumstances are required to make equal weekly added parental contribution. However, on an academic year basis, the accounting period ultimately used in determing the magnitude of the CSL, the program violates horizontal equity. For example, Table 1 shows that the expected *added* parental contributions for a family of four with a parental income of $54,250 increases by $652 when the length of the academic year increases by four weeks. Since a family's ability-to-pay is not a function of the length of the academic year, horizontal equity requires that families with an equal ability-to-pay should make the same added parental contribution regardless of the length of the academic year. Of course, the basic contribution, representing the cost of not having the student living at home, should vary with the length of the academic year.

The policy of basing the added parental contribution on the weeks of full-time attendance as well as on family size and parental income creates the possibility that the size of the CSL for which a student qualifies *decreases* as the student shifts from an institution with a short academic year (and hence lower costs) to an institution with a longer academic year (and hence higher costs). In fact, it is

Table 1. Parental Contribution Table: Weekly Added[1] Contribution by
        Family Size for Selected Incomes.[2]

parental income	Family Size								
	2	3	4	5	6	7	8	9	10
$	$	$	$	$	$	$	$	$	$
30,001-30,500	15	0	0	0	0	0	0	0	0
30,501-31,000	18	0	0	0	0	0	0	0	0
34,001-34,500	40	18	1	0	0	0	0	0	0
34,501-35,000	43	21	3	0	0	0	0	0	0
38,001-38,500	70	44	22	4	0	0	0	0	0
38,501-39,000	75	48	25	6	0	0	0	0	0
42,001-42,500	107	76	48	25	7	0	0	0	0
42,501-43,000	112	80	52	28	9	0	0	0	0
46,001-46,500	149	113	81	53	29	10	0	0	0
46,501-47,000	155	118	85	57	32	12	0	0	0
50,001-50,500	197	156	119	86	58	33	13	0	0
50,501-51,000	204	162	124	91	62	36	15	0	0
54,001-54,500	251	205	163	125	92	62	37	16	0
54,501-55,000	258	211	169	131	96	66	41	19	1
59,001-59,501	326	274	226	182	143	107	76	49	25
59,501-60,000	334	282	233	188	148	112	80	52	29

1. In addition to the $38/wk if the student lives away from home. See
   also footnote (8) in the text.

2. Source: Department of the Secretary of State of Canada (1987,
   pp. 26-31).

possible that as a result of such a shift the student may no longer qualify for a CSL,
even though his financial burden has increased! This anomaly exists if, as the
length of the academic year increases, the expected parental contribution rises
faster than the educational expenses. The probability of this anomaly occurring
increases with parental income and decreases with family size.

The solution to this anomaly is to make the added parental contribution a
function of family size and parental income only, and to calculate it on a semester

Table 2.   An Alternative Added Parental Contribution Table

Income Class	Unadjusted Added Parental Contribution
0 - 10,000	5% of income
10,001 - 20,000	$ 500 + 10% of income in excess of $ 10,000
20,001 - 30,000	$ 1,500 + 15% of income in excess of $ 20,000
30,001 - 40,000	$ 3,000 + 20% of income in excess of $ 30,000
40,001 - 50,000	$ 5,000 + 25% of income in excess of $ 40,000
50,001 - 60,000	$ 7,500 + 30% of income in excess of $ 50,000

Added Parental Contribution = Unadjusted Added Parental Contribution −

$1,000 x family size.

basis.[9] The expected parental contribution for an academic year is then $38/wk times the number of weeks of full-time attendance plus two times the expected added contribution for one semester. This clearly limits the parental contribution to the parents' ability-to-pay. It also ensures that as educational expenses increase because of a longer academic year the CSL always rises.

2. Discontinuous Marginal Contribution Rates and Vertical Equity

Vertical equity refers to the acceptable relative treatment of individuals in different circumstances. In the context of the CSL program, vertical equity minimally requires that as a family's income increases, the parental added contribution should also rise, but not by more than the increase in the family's ability to pay. In general, the CSL program adheres to this principle. However, a prominent feature of the Parental Contribution Table is that the expected weekly added contribution does not increase smoothly with income but is constant within each of the income classes and only rises as income moves up from one income class to the next. This results in numerous situations where a parent's expected added contribution rises by more than the increase in parental income. For example, consider a family of four with a parental income of $46,550. The expected added parental contribution for a thirty-two week academic year is $32 \times \$85 = \$2,720$ (see Table 1). This is $128 more than the expected added parental contribution for a family of four with a parental income of $46,450. The $100 increase in parental income has attracted an increased liability of $128. On the other hand, when family income increases by $100 from $46,550 to $46,650, the expected added parental contribution does not increase at all. Table 1, therefore, contains an odd mixture of highly progressive and regressive contribution rates and violates the principle of vertical equity.

This vertical inequity can be avoided by eliminating the contribution table with its income classes and substituting a formula for calculating the added parental contribution. Such a formula is shown in Table 2. The added parental contribution is determined by calculating the unadjusted added parental contribution using the formula in Table 2 and subtracting from this amount $1000 times the family size. For example, for the two parental incomes cited in the preceding paragraph the added parental contribution would be $2638 for the higher income ($46,550) family and $2613 for the lower income ($46,450) family. Note that this method of calculating the added parental contribution not only elminates the vertical inequity discussed in this section but also ensures that as the family size increases the CSL amount increases by the same magnitude regardless of parental income. As explained earlier, this is not true in the current system.[10]

3. High Marginal Contribution Rates and Work Disincentives

A prominent feature of the Parental Contribution Table is how quickly the expected added parental contribution rises with parental income. This is illustrated in Table 3 for a family of four with one dependent at a post-secondary institution. Column (1) of Table 3 shows the parents' income, at $2,000 intervals. In Column (2) the added parental contribution for a 32 week academic year is shown. Note that as income increases by $25,500 from $34,250 to $59,750 the expected added parental contribution rises by $7424, or by about 29% of the increase in before tax income.

It is important to note that the income levels in Column (1) of Table 3 are before tax incomes. Hence, as income rises, parents must pay additional taxes as well as the higher added contribution. In order to examine the interaction between the tax system and the Added Contribution Table, 1987 personal income tax payable by a family of four is shown in Column (3) of Table 3.[11] The difference between Column (1) and Column (3) is disposable (after tax) income. Consider now the percentage of additional disposable income a family of four must contribute as its income rises above $34,250. These percentages are shown in Column (4) of Table 3.[12] Note that if the parents' income is $59,750, they are expected to contribute towards their child's post-secondary education costs fully one-half of the extra disposable income they receive vis-a-vis a family of four earning $34,250. It is probable that without substantial advance notice most families with an annual income of $59,750 are locked into a set of financial obligations that make it very difficult to free up the required contribution out of disposable income and will have to borrow instead.

The full extent of the progressivity of the added contribution rate table is illustrated best by expressing the increment in the parents' added contribution as a percentage of the additional disposable income a family retains as its income rises by $500 from the midpoint of one income class to the next. These marginal contribution rates out of disposable income are shown in Column (5) of Table 3.[13] Note that at the fairly low income of $36,250 a family is expected to contribute

Table 3.   Some Characteristics of the Canada Student Loan Added Parental Contribution Table For a Family of Four for Selected Incomes at $2,000 Intervals, for the 1988-1989 Academic Year.

(1) Income $	(2) Added Parental Contribution For a 32 Week Academic Year	(3) 1987 Income Tax Payable	(4) Added Contribution As a % of Disposable Income Above the Base[1]	(5) Marginal Contribution Rate Out of Disposable Income[2] %
34,250	32	7,095	–	10.4
36,250	352	7,868	26.1	31.3
38,250	704	8,640	27.4	31.3
40,250	1,088	9,413	28.7	31.3
42,250	1,536	10,185	30.7	31.3
44,250	2,048	10,958	32.8	41.7
46,250	2,592	11,730	34.8	50.3
48,250	3,168	12,597	36.9	59.5
50,250	3,808	13,524	39.5	59.5
52,250	4,480	14,451	41.8	59.5
54,250	5,216	15,378	44.2	71.4
56,250	5,984	16,305	46.5	71.4
58,250	6,816	17,232	48.9	83.3
59,750	7,456	17,928	50.6	83.3

1.   See footnote (12) in the text for the formula used to calculate these percentages.
2.   See footnote (13) in the text for the formula used to calculate these percentages.

31% of additional disposable income when before tax income increases by $500. This rate rises to 83% for incomes above $58,000.

The very high marginal contribution rates out of disposable income shown in Column (5) of Table 3 can create a work disincentive effect. For example, consider a university teacher with a regular salary of $54,250 who is contemplating teaching an extra-to-load course for $5,500 to help cover some of the added

parental contribution for a dependent who currently qualifies for a $2,500 CSL. Table 3 shows that as a result of the additional $5,500 of income the expected added parental contribution rises by $2,240. This lowers the CSL the student qualifies for to $260. Furthermore, as shown in Column (3) of Table 3, the additional income causes taxes payable to increase by $2,550 at 1987 personal income tax rates. Hence, from a cash flow[14] point of view, teaching the extra course for $5,500 creates a net cash flow benefit of only $710.[15] This minimal benefit may well be considered insufficient reward for the effort involved and the extra work may not be taken on. A possible solution to this problem is presented in Section III of this paper.

4. Inflation and the Added Parental Contribution

Thus far the discussion has focused on CSL program design problems that exist at this point in time. However, probably the most urgent issue addressed in this paper is the fact that the added parental contribution table used for the 1988-89 academic year is identical to the table issued for the 1983-84 academic year. As a result, the effective assistance provided by the CSL program is substantially less today than it was five years ago. Three phenomena are responsible for this – inflation, high marginal contribution rates and personal income tax rate increases.

The problem is most easily explained in terms of a numerical example. Consider a family of four with a personal income of $44,250 in 1987. The 1987 tax year is chosen since the expected added parental contribution for the 1988-89 academic year is based on 1987 income. As shown in Column (2) of Table 4 the added parental contribution for 1988-89 is $2,048 for a 32 week academic year. What would have been the family's expected added contribution for the 1983-84 academic year if it had earned the equivalent real income in 1982? Column (3) of Table 4 shows that the equivalent real income in 1982 dollars is $35,485[16] and hence the added parental contribution would have been $192 in 1982 dollars[17] or, as shown in Column (5), $239 in 1987 dollars. Hence, vis-a-vis the 1983-84 academic year, inflation has increased the real burden of the expected added parental contribution by $1809 in 1987 dollars, as shown in Column (6) of Table 4. Of course, since inflation also affects the cost of higher education, the effect of inflation on the size of the CSL cannot be determined in the abstract. However, the point here is that over time inflation forces families with a constant purchasing power into contributing an ever larger share of that purchasing power to the cost of their offspring's education.

The problem is compounded by the fact that since 1982 the personal income tax burden has increased substantially due to partial deindexing for inflation and tax rate increases. The real increase in income tax payable in 1987 vis-a-vis 1982 is shown in Column (7) of Table 4 for a family of four. For example, the real tax burden, in 1987 dollars, for a 1987 income of $44,250 is $1,543 higher than for the equivalent real income in 1982.[18]

Table 4. The Effect of Inflation and Income Tax Changes on the Burden of the Added Parental Contribution for a Family of Four for the 1982 and 1987 Tax Years.

(1) 1987 Income in 1987 Dollars	(2) 1988–89 Added Parental Contribution[1]	(3) 1987 Income in 1982 Dollars[2]	(4) 1983–84 Added Parental Contribution[1]	(5) The 1983–84 Contribution Increased for Inflation[3]	(6) The Inflation Induced Real Increase in the Added Contribution (2) – (5)	(7) 1982–87 Real Increase in Income Taxes Payable[4] in 1987 \$'s
34,250	32	27,466	0	0	32	1,240
36,250	352	29,070	0	0	352	1,331
38,250	704	30,674	0	0	704	1,384
40,250	1,088	32,277	0	0	1,088	1,438
42,250	1,536	33,881	0	0	1,536	1,490
44,250	2,048	35,485	192	239	1,809	1,543
46,250	2,592	37,089	512	638	1,954	1,595
48,250	3,168	38,693	800	998	2,170	1,742
50,250	3,808	40,297	1,088	1,357	2,451	1,887
52,250	4,480	41,900	1,440	1,796	2,684	1,952
54,250	5,216	43,504	1,920	2,394	2,822	2,016
56,250	5,984	45,109	2,304	2,873	3,111	2,067
58,250	6,816	46,712	2,720	3,392	3,424	2,097
59,750	7,456	47,915	3,008	3,751	3,705	2,131

1. From the Canada Student Loans Program – Parental Contribution Table assuming a 32 week academic year.
2. Column (1) divided by 1.247 (the 1987 consumer price index divided by the 1982 consumer price index.)
3. Column (4) multiplied by 1.247
4. See text.

Since the added contribution table for the 1988-89 academic year makes no allowance for this increased real tax burden, the cash flow of a family earning $35,485 in 1982 and the same real income in 1987 is reduced by $3,352 (Column (6) and Column (7) in Table 4) over this period. Note that the inflation induced reduction in real cash flow (the sum of Columns (6) and (7) in Table 4) at a given real income level rises rapidly with real income and reaches $5,836 for a 1987 income of $59,750.

Showing that inflation has increased the real burden of the added parental contribution is much simpler than measuring the consequences of the inflation induced tightening up of the CSL program. One such measure is the reduction in the number of families that are not expected to make any added parental contribution, basically families with a parental income less than $35,000. In 1982 72.5% of all 40-64 year old males with a taxable income[19] earned less than $35,000 (Revenue Canada, 1984, Table 10). These males were therefore not

expected to make an added parental contribution. By 1987 inflation had reduced the purchasing power of $35,000 to $28,226 in terms of 1982 dollars. If in 1982 the threshold for making an added parental contribution had been $28,226, only 44.6%, rather than 72.5%, of all 40-64 year old males with a taxable income would not have been expected to make an added parental contribution. This suggests that inflation since 1982 has substantially reduced the number of families that are not expected to make an added parental contribution.

In part, the solution to this problem is to index the added parental contribution table (or the formula shown in Table 2) for inflation. This will ensure that the added parental contribution rises no faster than the rate of inflation if parental income rises at the rate of inflation. In addition, as the personal income tax burden at a given real income level changes over time, the marginal added contribution rate should be revised accordingly.

III. Re-orienting the Focus of the CSL Program

Thus far, the problems addressed and the solutions proposed have occurred within the context of the current design of the CSL program. However, this design itself needs to be questioned. The current CSL plan has two objectives. First, it guarantees student loans at lending institutions, thereby enabling students to borrow funds more easily and at lower rates. Second, the plan subsidizes the borrower by paying interest on the loan while the borrower is a full-time student and for six months thereafter. While both of these activities assist the student, only the latter imposes a substantial cost on the federal government. The government controls this cost, and directs the benefit of this subsidy to those most in need, by reducing the size of the CSL it will guarantee as parental income rises.

The manner in which the government controls the cost of the interest subsidy in the CSL program can be criticized on three grounds. First, just when students reach the age at which they should be rapidly developing into independent adults, their financial affairs become heavily intertwined with those of their parents. This hardly promotes the maturation process. Furthermore, independent minded students who are unwilling to involve their parents in a CSL application simply cannot get a loan. Conversely, parents who are unwilling to file the requisite financial disclosures effectively block their offsprings' access to CSL.[20] In both these cases the high school graduate's chances of going on to university are diminished. Second, as shown in the preceding section, the design of the added parental contribution table can abruptly place a very heavy financial burden on middle and upper income families. Third, the cost of the interest subsidy is controlled by rationing access to an almost free good, the governments' credit rating. The current plan does not allow the government to share more generously its low cost guarantee services, and instead limits access to this almost free good on the same basis as it limits access to the interest subsidy, a much more expensive service and hence more in need of rationing.

The CSL program can be substantially improved, without any appreciable increase in costs, by redesigning it so that it distinguishes clearly between its two objectives – guaranteeing student loans and subsidizing interest costs for students from low income families. This improvement can be achieved simply by permitting the government to guarantee student loans on the basis of financial need independent of parental income and then, depending on parental income, to subsidize all, part, or none of the interest cost while the student is enrolled full-time and for six months thereafter. Such a policy change would enhance student access to low cost credit without an undue increase in the federal government's costs[21] while preserving the current policy of subsidizing the student according to need based on parental income.

This proposed change in the CSL program will yield the best results if two additional features are incorporated into the plan. First, students should be allowed to apply for a CSL without also submitting an application for an interest subsidy. Second, the unsubsidized portion of the annual interest payment to the bank while the student is at college should be considered an education expense for the next CSL application. If these two rules are adopted, students who are unwilling to involve their parents in financing their post-secondary education, or students whose parents are unwilling to help, can nevertheless apply for a CSL to supplement their summer earnings.

Parents will also benefit from the program changes proposed here. First, middle and upper income parents will be eased into a major financial obligation. Under the proposed change to the plan the cash flow burden on these families is the unsubsidized portion of the annual interest payment while their dependent is at college. Even if parents assume full responsibility for this amount it will hardly be more than $400-$500 in the first year of college and $2,000 – $3,000 by the end of the four years of college education. These costs can be phased into the family budget much more easily than the high costs these families are expected to absorb under the current plan. Of course, the offset is that the student from such a family will now graduate with a much larger CSL. However, once the $2,000-$3,000 annual interest program is absorbed into the parents' budget the parents have the option of continuing part, or all, of this payment until the CSL is repaid.[22] In other words, from the parents' point of view the proposed changes will ease the family into a manageable financial obligation rather than abruptly presenting it with a heavy financial cash flow burden.

The other advantage from the parents' point of view is that the proposed changes largely remove the disincentive-to-work effect discussed above. This occurs because the rate at which the interest subsidy declines as parental income rises above a threshold level can be set quite low, for example, the interest subsidy might fall 25 cents for each dollar of parental income above $35,000. This is a much lower marginal contribution rate than the rates in the existing plan (see Table 3) and will have a lesser work disincentive effect. Nevertheless, even at this low contribution rate the government's interest subsidy will be aimed more directly at

low income families than in the current plan. For example, a family with a parental income of $40,000 would be liable for the first $1250 of loan interest each year. If this family had one dependent at college and if this dependent borrowed $4,000 per year at 12% to supplement $2,000 of savings out of summer employment, the parents would be responsible for all of the interest costs in the first three years. Only in the fourth year would the student (family) receive an interest subsidy of $430.[23] This is much less than the $1628 interest subsidy over four years that would be given to the student under the rules of the current plan.[24]

As a final point, it should be noted that the provinces have added either a grant or a loan remission feature to the CSL program. The grant feature consists of meeting a student's financial need (after the parental contribution) partly with a grant and partly with a CSL. The loan remission feature basically consists of the province paying that part of the accumulated CSL above a specific amount at the end of the student's undergraduate years. Both features can be retained in the plan revisions proposed in this section.[25]

Adoption of the revisions proposed in this section has no major implications for students who currently qualify for a CSL under the existing rules. The main effect is simply that more students will now borrow and that they will borrow larger amounts. However, as shown above these additional loans need not increase the cost of the government's interest subsidy.

IV   Summary and Conclusions

In the first part of this paper the exisitng CSL program is critically evaluated and some urgent reforms are proposed. These reforms maintain the plan's basic design but remove some horizontal and vertical inequities inherent in the plan and correct for the erosion of the plan's effectiveness that has occurred over time as a result of inflation and personal income tax changes.

In the last section of the paper a modified CSL plan is developed. The modification separates the plan's subsidy function from its role of loan guarantor while maintaining both functions. It is argued that both parents and students will benefit from this modified design without any great increase in costs to the federal government.

NOTES

1 Total post-secondary enrolment figures for 1987-88 are not yet available. However, the most recent data available (Statistics Canada, 1989a and 1989b) indicate that in 1986-87, 321,500 full-time students were enrolled in Canadian non-university post-secondary programs and that in 1987-88, 486,000 students were enrolled full-time in Canadian universities. It should be noted that some of the CSL's reported for 1987-88 were taken out by Canadians studying abroad.

2 In 1987-88 tuition fees were about $1500, residence fees $3,000, and books and supplies, $500.

3 For the exception see part 1 below.

4 For conventional loans, the amount one can borrow normally rises with one's income.

5 For a more detailed description of the Canada Student Loans program see the Department of the Secretary of State of Canada (1989, pp. 1-6).

6 The chartered banks are the primary lending institutions.

7   To qualify as a full-time student, the student must carry at least 60% of a full academic course load.

8   The $38/wk is an estimate of the weekly amount a family saves as a result of the student living away from home.

9   A semester is any period of four consecutive months, usually starting in September, January, or May.

10   Similarly, vertical equity also requires that any allowances for exceptional expenses be in the form of deductions from the added parental contribution rather than as a deduction from parental income.

11   The following assumptions are used in these calculations: one income earner, the full marriage deduction, the full deduction for one dependent under eighteen, no deductions for the student, the standard $100 deduction for charitable donations/health care expenses, and the maximum deduction for employment expenses, UIC and CPP.

12   The percentages in Column (4) of Table 3 are calculated using the formula $(C_i - 32)/(Y_i - T_i - 34,250 - 7,095)$, where C is the added parental contribution (Column (2)), Y is parental income (Column (1)), T is income tax payable (Column (3)), and i is the ith income class.

13   The percentages in Column (5) of Table 3 are calculated using the formula $(C_i - C_i^*)/[(Y_i - T_i) - (Y_i^* - T_i^*)]$, where C is the parental contribution, Y is parental income, T is personal income tax payable, i is the ith income class shown in Table 3, and * denotes the C, Y and T values for an income level $500 below Y.

14   Cash flow refers to the funds (earned and borrowed) available to meet the dependent's educational expenses.

15   Net cash flow benefit ($710) = extra income ($5500) − extra taxes ($2250) − extra parental contribution ($2240).

16   The 1987 consumer price index is 24.7% higher than the 1982 consumer price index (Department of Finance, June 1988, p. 80).

17   From the CSL contribution table assuming a 32 week academic year.

18   The inflation induced real increase in income tax payable is calculated as follows. The 1987 income levels shown in Column (1) of Table 4 are expressed in 1982 dollars by dividing by 1.247. The income tax payable on these incomes is then calculated for the hypothetical family of four and these amounts are then expressed in 1987 dollars by multiplying by 1.247. This product is subtracted from the actual 1987 income tax payable at the income levels shown in Column (1) of Table 4.

19   The number of 40-64 year old males with a taxable income is used as a proxy for the number of families that have children in the 18-24 age group, the group from which most undergraduate students are drawn.

20   However, recall that after two periods of twelve consecutive months of employment, or four years after high school graduation, a CSL applicant is considered an independent and need not submit a statement of parental income and assets.

21   Of course, as the federal government guarantees more CSL's the number of loan defaults it must make good can be expected to rise. However, it can be argued that the number of defaults will rise less than proportionately with the increase in CSL's. This is based on the argument that a graduate's job prospects are positively related to parental income (through the old boy network). Hence, the risk of default is less when a CSL is granted to a dependent from a high income family than to a dependent from a low income family.

22   These payments would be in addition to the payments the graduate would be expected to make.

23   It is assumed that the average loan amounts are $2,000, $6,000, $10,000, and $14,000 for the four years of post-secondary education, i.e. the average of the opening and closing balances for each year.

24   This amount is calculated as follows:

Student financial need		$6,000.
Less: Student savings	= 2,000.	
parental contributions ($38 + $34) × 32 weeks	= 2,304.	4,304.
Canada Student Loan		$1,696.

The average CSL and 12% interest paid by the Federal government, in parentheses, for each of the four years are $848 ($102), $2544 ($305), $4,240. ($509), and $5936 ($712).

25 One problem with the current grant and loan remission programs is that they are in effect based on parental income and not on the borrower's (student's) ability to repay the loan after graduation. A strong case can be made for making the student liable for the full amount of the loan (no grants or remissions upon graduation) and, over the repayment period, granting a refundable vanishing tax credit against provincial personal income tax payable depending on the student's income above a threshold level.

REFERENCES

Department of Finance (1988), *Quarterly Economic Review: Annual Reference Tables* (Ottawa: June 1988).

Department of the Secretary of State of Canada (1987), *Canada Student Loans Program for Full-Time Students: 1987-88* (Ottawa: Minister of Supply and Services Canada).

————— (1989) *Canada Student Loans Program: Annual Reports for 1987-88 and 1985-86 and 1986-87* (Ottawa: Minister of Supply and Services Canada).

Revenue Canada (1984) *Taxation Statistics: Analyzing the Returns of Individuals for the 1982 Taxation Year* (Ottawa: Minister of Supply and Services Canada).

Statistics Canada (1989a) *Community Colleges and Related Institutions: Post Secondary Enrolment and Graduates* (Ottawa: Catalogue number 81-222).

————— (1989b) *Universities: Enrolment and Degrees, 1987* (Ottawa: Catalogue number 81-204).